

10 December 2013

California Water Plan Update 2013
California Department of Water Resources
P.O. Box 942836
Sacramento, CA 94236-0001
Attn: Paul Massera

Dear Mr. Massera:

Thank you for the opportunity to review the *California Water Plan Update 2013*. The public review draft represents an extraordinary strategic planning effort and promises to provide an excellent framework for achieving the goals and objectives as described in the plan. Staff of the Planning Unit at the North Coast Regional Water Quality Control Board (Regional Water Board) has reviewed Volumes 1, 2, and 3 and provide the attached comments.

The Regional Water Board is currently engaged in an internal revisioning process in which the themes expressed in the *California Water Plan Update 2013* have come clearly to the fore. Staff looks forward to opportunities to build our partnership with Department of Water Resources (DWR) and to better collaborate on efforts throughout the North Coast Region which have the potential to leverage our respective authorities, skills, and programs while accomplishing our mutual objectives.

In this spirit, we would like to make ourselves available to meet with DWR staff to go over comments, as necessary. Please feel free to contact me at your convenience.

Sincerely,

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Cc: Matt St. John, Executive Officer
David Leland, Assistant Executive Officer

Comments on the public review draft *California Water Plan Update 2013*

The following comments are submitted on behalf of staff at the North Coast Regional Water Quality Control Board (Regional Water Board).

Volume 1, The Strategic Plan

1. The *California Water Plan Update 2013* (Update 2013) highlights three themes which are woven throughout the report. They include: a) Integrated Water Management, b) Government Agency Alignment, and c) Invest in Innovation and Infrastructure. Regional Water Board staff agrees with the importance of these three themes to the overall assessment of water issues in the state and their appropriate management. Update 2013 makes a compelling argument that the complexity of water issues coupled with the dwindling resources of the State requires that agencies work more closely together, that projects achieve multiple objectives, and that the State invest in the development of innovative “green” solutions to water resource requirements. Regional Water Board staff will be looking for concrete ways in which interagency coordination/collaboration can more successfully occur and look forward to future interactions with the Department of Water Resources and others. Staff notes that these three themes are unevenly integrated into the recommendations of each Resource Management Strategy. DWR should review the recommendations of each section and ensure that these three themes are adequately integrated in each case.
2. Regional Water Board staff strongly support the vision of protecting and restoring healthy, resilient watersheds as the key to securing the future water resources necessary for both human and ecological purposes.
3. Regional Water Board staff highlight its support of Goal #4 in which water resource and land use planners make informed and collaborative decisions and implement integrated actions to increase water supply reliability, use water more efficiently, protect water quality, improve flood protection, promote environmental stewardship, and ensure environmental justice and public access to water bodies, in light of drivers of change and catastrophic events.
4. Similarly, Regional Water Board staff highlights its support of Guiding Principle # 1 in which California’s water resources and management systems are managed with ecosystem health and water supply and quality reliability as equal goals, with full consideration of public trust uses. Healthy, functioning ecosystems and reliable, quality water supplies should be primary and equal goals for water management to help sustain water resources and management systems. Protecting public trust uses whenever feasible, and considering public trust values in the planning and allocation of water resources should be emphasized. State government should protect the public’s rights to commerce, navigation, fisheries, recreation, ecological preservation, and related beneficial uses, including those of its Native American tribes and other communities that depend on these resources for subsistence and cultural practices. This guiding principle

comports well with the beneficial uses of water which the Regional Water Board is tasked to protect and restore in the North Coast Region.

Objective 1—Strengthen Integrated Regional Water Management Planning

5. As a result of State budget cuts and loss of staff, Regional Water Board staff has been prevented in recent years from regularly participating in the North Coast Integrated Regional Water Management group. Update 2013 makes clear the importance of the IRWMP groups for the pursuit of the goals as expressed in the plan. We hope to identify improved participation in the North Coast IRWMP as a high priority as part of our own internal visioning process currently underway.

Objective 2—Use and Reuse Water More Efficiently

6. Regional Water Board staff strongly support the call to continue improving water use efficiency in multiple sectors within the State, including agriculture and urban water use. The development of sustainable agricultural practices support not only efficient water use, but also promotes the control of waste generation, habitat loss, fertilizer and pesticide use, and soil loss. Staff recommends that specific mention of sustainable agricultural practices be included in this call to action. Regarding water reuse, staff supports the concept that water quality be matched with water use; but, part of the assessment must include consideration of the fate and transport of any constituents in recycled water which have the potential to impact surface or groundwaters. Recycled water must be applied in a manner so as to control the runoff or percolation of contaminants to surface of groundwater, including shallow groundwater which is a useable (and used) water resource in the North Coast Region.

Objective 3—Expand Conjunctive Management of Multiple Supplies

7. Staff supports the concept of conjunctive management of water supplies, particularly in light of the predicted impacts associated with climate change. In the North Coast, groundwater is generally of very high quality, with the exception of some geologic formations which produce groundwaters with elevated arsenic. In addition, shallow groundwater is generally useable water in the North Coast and is the drinking water source for many domestic users in the Region. It is incumbent upon the Regional Water Board to ensure protection of the water quality for all water users, including domestic users. As such, the storage of surface water in groundwater aquifers must be accomplished with consideration of the short- and long-term impacts to water quality as measured in groundwater and at domestic taps where water is often used untreated.

Objective 4—Protect and Restore Surface Water and Groundwater Quality

8. Update 2013 provides an excellent description of the importance of watershed health and the need for watershed management. Staff supports the recommendations as they relate to the restoration of impaired surface waters and high use groundwaters. This call to action could be strengthened, however, by more explicitly making recommendations relative to the protection of high quality waters. This is of particular importance to the North Coast Region where waters are generally of high quality for most constituents [see 303(d) list for notable exceptions]. Watershed management is an excellent approach for both the protection and restoration of water quality and should be used as a principle to support interagency collaboration, identify projects with the potential to achieve

multiple objectives, and to identify opportunities to invest in innovative water management strategies in both impaired and healthy watersheds. Recommendation 4.4 should include mention of Resource Stewardship management strategies.

Objective 5—Practice Environmental Stewardship

9. Staff strongly supports the concept and recommendations included in this objective. The Regional Water Boards have the authority to designate Outstanding National Resource Waters, a designation which may have some utility for supporting coordinated environmental stewardship in healthy watersheds.

Objective 6-- Improve Flood Management using an Integrated Water Management Approach

10. Staff strongly supports the integrated water management approach which recognizes the importance of protecting and restoring natural floodplain processes. The Regional Water Board has adopted as a beneficial use of North Coast waters Wetland Habitat (WET), Water Quality Enhancement (WQE) and Flood Peak Attenuation/Flood Water Storage (FLD). These beneficial uses have not been designated for individual waters, as of yet. But, their designation could be useful to a coordinated effort to identify and collaborate on floodplain protection and restoration efforts in the North Coast.

Objective 11—Invest in Water Technology and Science

11. Staff suggests that the recommendations of this objective more clearly articulate the need to develop technology, techniques, and data analysis/management systems that better supports sustainable agricultural practices, including agronomic applications of water and fertilizer and whole system farming methods which support food production, habitat development, and water quality protection.

Objective 13—Ensure Equitable Distribution of Benefits

12. Many of the communities in the North Coast Region are small, rural communities where the annual average income is less than the statewide average. Regional Water Board staff request assistance from DWR in identifying those communities in the region which may be considered disadvantaged and could be eligible for funds associated with water quality protection needs. Many small communities require assistance upgrading old wastewater treatment systems, upgrading leaking and/or failing septic systems, upgrading and/or installing water delivery systems, or abating landuse-related elevated flood risks.

Objective 15—Strengthen Alignment of Landuse Planning and Integrated Water Management

13. Staff strongly supports this objective and recommends reference to the Low Impact Development techniques promoted by the State Water Resources Control Board to reduce the potential for urban development to impact water quality.

Objective 16—Strengthen Alignment of Government Processes and Tools

14. Staff strongly supports the concept of integrated, interagency planning and supports the notion of multi-benefit projects. Staff recommends that agency

heads be encouraged to build internal support, provide necessary training, and provide clear direction to staff to accomplish this objective.

Volume 2, Regional Reports—North Coast

1. The North Coast Regional Report unevenly reports the 303(d) impaired waters listing status of surface waters in the North Coast Region. Similarly, it unevenly reports those sections of rivers in the North Coast which are designated as Wild and Scenic Rivers. Watersheds that are coincident with a DWR-designated groundwater basin should be highlighted. Each watershed discussion would benefit from mention of the proportion of residents that are served by a community or municipal water delivery system and/or wastewater treatment system versus those that rely on surface water and/or groundwater-based domestic water systems and/or onsite waste treatment systems. Finally, many watersheds in the North Coast River are predominantly owned and managed as public land and should be specifically mentioned.
2. The discussion of the Smith River should include information related to the Smith River plain, farming activities in that region, and the water quality issues, including potential groundwater contamination, which are at issue. The risks associated with climate change in the Smith River plain and other similar coastal estuaries in the North Coast Region should be highlighted.
3. In the Humboldt Bay watershed discussion, Humboldt Bay and its tributaries should be identified separately. Humboldt Bay is a unique coastal feature on the North Coast and will confront many interesting and difficult water quality, commerce, and human health and safety issues as the effects of climate change become more pronounced, including impacts to: Highway 101, wastewater treatment facilities, aquaculture facilities, industrial facilities, nuclear power plant, agriculture, wetlands and wetland functions, native species and habitat, etc. Further, the Humboldt Bay watershed discussion should be organized to provide information relative to individual river systems beginning in the north and moving systematically to the south to provide greater organization.
4. Gravel Mining (including suction dredging) NC-45: In the northern portions of the region, particularly in the Van Duzen River, Eel River and Mad River watersheds the interagency regulatory group has focused efforts to improve aquatic habitat, primarily for salmonid species, through the gravel extraction process. An example would be the need to manage aggraded areas at the confluence of the Eel and Van Duzen Rivers to allow adequate fish passage. Another example is the inclusion of riparian restoration as compensatory mitigation. Therefore, in some instance gravel extraction activities could be performed in an intergraded water management fashion that produces both positive benefit for environment and economy. However, a key factor is to understand a watershed's current baseline of gravel deposition and how stream equilibrium would relate to a sediment budget that supports beneficial uses. Additionally, considering stream conditions and functions are critical components of managing resources in a way that support beneficial uses. Staff recommends that watershed assessment precede significant landuse decisions, as a way of identifying the overlapping priorities of multiple parties.

5. Irrigated Lands Program. This title should be changed to say “Agricultural Lands Program.” Further, this section should be updated to reflect more recent information as contained on the North Coast Regional Water Quality Control Board’s webpage at www.waterboards.ca.gov/northcoast/water_issues/programs/agricultural_land.
6. Nonpoint Source Pollution: This section would benefit from better referencing the Regional Water Board’s Nonpoint Source Pollution Prevention program and the NPS 5-year plan, including the Regional Water Board’ priorities.
7. Erosion and Sedimentation: Sedimentation is one of the most significant surface water issues in the North Coast Region, resulting in many 303(d) listings; numerous TMDLs and implementation plans; multiple general, watershed, and individual permits and waivers; and other control activities. The discussion provided does not adequately indicate either the enormity of the problem or the intense agency focus that has been necessary to address the problem over the last couple of decades. Further, this section could highlight some particular issues of importance including: the role of timber harvesting in the Region and its historic importance to sediment production, the extreme sedimentation rates of the Eel River, the nuisance flooding conditions in the Elk River resulting from increased sedimentation rates, the issue of hillslope vineyard development and increased erosion potential, and the erosion (and other water quality issues) associated with marijuana cultivation which has presented itself as an emerging issue.
8. Flood Management / Flood Hazard Exposure: There is no mention of the Lower Russian or the Elk rivers as areas exposed to flooding.
9. Hydropower, a Renewable Energy NC-61: The Klamath River in California is impaired for increased water temperatures, elevated nutrient levels, low dissolved oxygen concentrations, elevated pH, potential ammonia toxicity, increased incidence of fish disease, an abundance of aquatic plant growth, high chlorophyll-a levels both planktonic and periphytic algae), and high concentrations of potentially toxinogenic blue-green algae, particularly in the impounded reaches. This pollution decreases the quality and quantity of suitable habitat for fish, other aquatic life and has resulted in large fish kills, and has disrupted traditional cultural uses of the river by resident Tribes. In addition to cultural beneficial use impairments, recreational beneficial uses are impaired due to the potential health risks associated with blue-green algae blooms. As noted in the Nonpoint source section health advisories have been posted in reaches of the Klamath River including the Copco and Iron Gate Reservoirs, and below to the confluence with Tully Creek. While the presence of these dams may help California meet its renewable energy mandates their presence are significant contributing factors to the impairments discussed above.
10. Water Governance: The document states that... “A large number of North Coast residences are in 30 rural areas with no water service and rely on groundwater wells or personal surface-water treatment 31 facilities and onsite wastewater disposal systems, usually septic systems (North Coast Integrated Regional 32 Water Management Plan, Phase III c2012).” Staff recommends that this section

be linked to other groundwater sections by reference, in support of the need to protect groundwater resources in the North Coast.

11. Groundwater Management Assessment: Staff suggests relocating the SCWA GWRP discussion which is located in the regional report of the San Francisco Hydrologic Region to be included in the North Coast, as the majority of the agency's jurisdiction is within the North Coast Region.

Volume 3, Resource Management Strategies

Objective: Reduce Water Demand

1. Agricultural Water Use Efficiency: Strategies for reducing water use are identified for urban and agricultural supplies. Much of the North Coast Region is rural and depends on non-centralized water systems that rely on withdrawals from springs and small streams, many of which are fed by shallow groundwater. Strategies for rural and agricultural lands should include water storage for use during low flow periods, thus reducing demand and withdrawals from streams during periods of lower flows and higher temperatures, conditions which are most stressful to some of the more sensitive beneficial uses. Additionally, watershed management projects could evaluate options to enhance shallow groundwater via projects that capture and infiltrate into headwater streams runoff that would otherwise move through the system as surface flow during later spring rains.

Objective: Improve Flood Management

2. This section offers an opportunity to provide clear and robust recommendations supporting interagency collaboration on the goal of protecting and restoring natural floodplain functioning.

Objective: Improve Water Quality

3. Drinking Water Treatment and Distribution. Staff suggest deleting some statements which appear in several locations throughout the document that could be construed as opinion rather than factual information, such as the one on Page 15-3 Line 10 regarding bottled and tap water being "healthy choices." Also, Page 15-5 Lines 31-32, staff suggests modification, such as: Fluoridation treatment, now commonly practiced in California, may be used to add fluoride to ~~an optimal level that provides~~ as recommended by the American Dental Association to provide dental health benefits.
4. Drinking Water Treatment and Distribution, Water Use Efficiency. Consider adding a discussion of Low Impact Development (LID). Information can be found at <http://water.epa.gov/polwaste/green/>.
5. Drinking Water Treatment and Distribution, Fluoridation. Staff agrees that covering the history of fluoridation in California, its purpose, and technical requirements are appropriate; however, we suggest that the fluoride discussions in Chapters 15 and 18 be modified to remove language that could be construed as opinion. While studies may suggest there are benefits to the application of fluoride for the prevention of dental caries, it may not be advisable to discuss the potential benefits of fluoridation of water supplies in this report. Fluoridation is not universally accepted, a large number of states, and the majority of advanced

countries do not fluoridate drinking water. There are several North Coast communities that have voted down the addition of fluoride to their drinking water in recent years. Further, some studies indicate that salmonids and amphibians exposed to fluoride show shorter life, behavior issues and bone growth problems. Regional Board staff has received information from interested stakeholders in regard to these issues and staff is looking into the potential beneficial use impacts of fluoridation that result in higher levels of fluoride in North Coast waterbodies. We have the following additional suggestions in regard to this section: Page 15-4 Line 15, staff suggests adding the term 'generally' in front of the term 'accepted' if choosing to retain this statement. Page 15-8 Line 21, staff suggests removing the term "unequivocally."

6. Matching Water Quality to Use. The North Coast Region differs from many other regions of the State because of the relatively abundant surface and groundwater which is generally of high quality for most constituents. These waters have historically supported aquatic ecosystems important to many threatened and endangered species for whom the North Coast Region is ecologically significant. These waters have also supported rural residents for whom community and/or municipal water supply is unavailable. One of the predominant water quality protection issues in the North Coast Region is adherence to the Antidegradation Policy by which high quality waters are to be protected from degradation unless the Regional Water Board makes certain findings. Staff strongly support the concept of matching water quality use with the caveat that reuse of poor quality water be managed in such a way as to prevent impact to high quality waters (e.g., via runoff, percolation, recharge, or injection).
7. Pollution Prevention, Urban Impacts. *Page 18-16 Line #16.* Consider mentioning the State Water Board OWTS Policy and adding a reference to the OWTS Policy which is described later in the CWP on page 18-19.
8. Pollution Prevention, Contaminants of Emerging Concern. *Page 18-17 Lines 25-26.* Staff appreciates that this issue has been included in the Clean Water Plan update. We suggest referencing the earlier Contaminants of Emerging (CEC) concern section (on page 15-23). *Page 18-17 Line 25,* staff suggests bringing this discussion regarding the Recycled Water Policy up to date as this document was updated in April 2013. The latest information can be found here: http://www.swrcb.ca.gov/water_issues/programs/water_recycling_policy/ or by contacting Gordon Innes at Gordon.Innes@waterboards.ca.gov

In addition, we suggest bringing the CEC discussion more up to date by mentioning the following CEC work by the State and Regional Boards in cooperation with other organizations, including SFBWQCB's program to address CECs in cooperation with the SFEI, which is discussed here: <http://www.sfei.org/rmp/ecwg>. Also, SCWRP's work that was done by the Scientific Advisory Panel on CECs as it relates to the Recycled Water Policy for the State Board's Recycled Water Policy – info can be found here: <http://www.sccwrp.org/ResearchAreas/Contaminants/ContaminantsOfEmergingConcern/RecycledWaterAdvisoryPanel.aspx>. A State Water Board grant now in place to create a monitoring plan for CECs that the SB has recently begun work.

The main contact is: Dawit Tadesse at State Board.(Contact-
dawit.tadesse@waterboards.ca.gov).

9. Salt and Salinity Management. Staff recommends that the potential for salt accumulation in closed basins (surface or groundwater) be addressed. A recommendation should be developed addressing the need for criteria by which to assess whether the degradation of surface or groundwater by salt accumulation in particular areas is in the maximum interest of the people of the State.
10. Urban Stormwater Runoff Management. Staff recommendations that stormwater runoff management and groundwater recharge opportunities also consider the potential to protect and restore habitat and aquatic ecosystem function.

Objective: Practice Resource Stewardship

11. Agricultural Land Stewardship. The Clean Water Act does not provide a direct regulatory framework to address nonpoint sources of pollution; as such federal National Pollution Discharge Elimination System (NPDES) permits are not applicable to nonpoint sources of pollution. Provisions contained in the Porter-Cologne Water Quality Control Act, however, clearly mandate the development of a regulatory structure that provides for the control of nonpoint sources of pollution. This chapter provides a discussion of the California Rangeland Management Plan, a voluntary program developed in 1990 as a means of addressing the Federal Clean Water Act (CWA). Reference to this program would be more appropriate in the context of the current state policy on non-point source discharges.

In 2004, the State Water Board adopted the *Policy for the Implementation and Enforcement of the Nonpoint Source Pollution Control Program*¹ (NPS Policy), which explains how Water Board authorities granted by the Porter-Cologne Act will be used to implement the California NPS Program Plan. The NPS Policy requires the Regional Water Boards to regulate all nonpoint sources of pollution using the administrative permitting authorities provided by the Porter-Cologne Act. Nonpoint source dischargers must comply with Waste Discharge Requirements (WDRs), waivers of WDRs, or Basin Plan Prohibitions by participating in the development and implementation of Nonpoint Source Pollution Control Implementation Programs. NPS dischargers can comply either individually or collectively as participants in third-party coalitions². All NPS pollution control programs must meet the requirements of the following (Five) Key Elements described in the NPS Implementation and Enforcement Policy. Each implementation program must be endorsed or approved by the appropriate Regional Water Board or the Executive Officer (if Water Board has delegated authority to the Executive Officer). The NPS Policy reiterates the three regulatory approaches that are available to the Regional Water Board, also

¹ <http://www.waterboards.ca.gov/water_issues/programs/nps/docs/oalfinalcopy052604.pdf> (as of February 15, 2013).

² The “third-party” Programs are restricted to entities that are not actual dischargers under Regional Water Board permitting and enforcement jurisdiction. These may include Non-Governmental Organizations, citizen groups, industry groups, watershed coalitions, governmental agencies, or any mix of these.

enabling the Regional Water Board to use its enforcement tools in regulating nonpoint source dischargers that do not comply with the applicable permit, conditional waiver, or Basin Plan prohibition(s).

- Key Element 1: A Nonpoint Source Pollution Control Implementation Program's ultimate purpose must be explicitly stated and at a minimum address NPS pollution control in a manner that achieves and maintains water quality objectives.
- Key Element 2: The NPS pollution control implementation program shall include a description of the management practices (MPs) and other program elements expected to be implemented, along with an evaluation program that ensures proper implementation and verification.
- Key Element 3: The implementation program shall include a time schedule and quantifiable milestones, should the Regional Water Board so require.
- Key Element 4: The implementation program shall include sufficient feedback mechanisms so that the Regional Water Board, dischargers, and the public can determine if the implementation program is achieving its stated purpose(s), or whether additional or different MPs or other actions are required.
- Key Element 5: Each Regional Water Board shall make clear, in advance, the potential consequences for failure to achieve an NPS implementation program's objectives, emphasizing that it is the responsibility of individual dischargers to take all necessary implementation actions to meet water quality requirements.

12. Ecosystem Restoration. With so many watersheds exhibiting adverse cumulative watershed effects, there is a great need for implementation of restoration and enhancement projects. In areas where there are proposed or ongoing waste discharges to waterbodies with impairments, mechanisms are needed to ensure that enhancement projects are implemented on a similar time frame to reduce the potential for exacerbating the cumulative effects. This could be accomplished by incorporation of restoration into waste discharge permits. However, because regulatory requirements are often precluded from public funding and the associated restoration permitting programs, there is an inherent tension between requiring that the enhancement projects occur and facilitating the enhancement project via public funding and associated permitting programs. Potential means of reconciling this situation could include 1) allowance of public funding of restoration projects that are regulatory requirements and 2) enhancement projects evaluated as part of the CEQA analyses for waste discharge permits could facilitate issuance of necessary permits associated with the enhancement projects.

13. Forest Management. The North Coast Regional Water Quality Control Board (Regional Water Board) has been active in regulating discharges from logging and associated activities since 1972. Our role in regulating discharges from timber harvesting activities is consistent with the abundance of timber and water resources in the North Coast Region. The North Coast Region includes 12 percent of the State's land area, yet produces 48 percent of the private timber harvested within the State and 40 percent of the State's total runoff.

The Regional Water Board is responsible for enforcing the [Porter-Cologne Water Quality Control Act](#) (Act) as well as the [Water Quality Control Plan](#) for the North Coast Region (Basin Plan). The Porter-Cologne Act and the Basin Plan prohibit the discharge of materials that adversely affect the beneficial uses of the waters of the State. The Regional Water Board has the authority to take enforcement action, ranging from staff level enforcement actions to issuing administrative civil liabilities (fines) against persons who violate the Act or the Basin Plan.

Timber harvesting activities with the greatest potential to impact waters of the State include: felling, yarding, and hauling of trees; road construction and reconstruction; watercourse crossing construction, reconstruction, or removal; and herbicide applications. Excessive vegetation alteration, soil erosion, and sediment delivery associated with these activities can impact the beneficial uses of water by: 1) silting over fish spawning habitats; 2) clogging drinking water intakes; 3) filling in pools creating shallower, wider, and warmer streams, and increasing downstream flooding; 4) creating unstable stream channels; and 5) losing riparian habitat and function. Timber harvesting in the riparian zone can adversely affect stream temperatures by removing stream shading, especially important for maintaining cold water beneficial uses in temperature impaired waterbodies.

Timber harvest activities occur on both public and private lands within the North Coast Region. For private lands, the California Department of Forestry and Fire Protection (CAL FIRE) is the lead agency responsible for regulating timber harvesting under the California Forest Practice Rules (FPRs). The State Water Board, State Board of Forestry, and CAL FIRE entered into a Management Agency Agreement (MAA) in 1988 for overseeing water quality protection on Timber Harvest Plan (THPs). Under the MAA, the Regional Water Board is a responsible agency and plays an advisory role. The FPRs require the submission and approval of a THP prior to starting most timber operations. Once a THP is submitted to CAL FIRE, Regional Water Board staff review the plan as a "Review Team" member, along with the Department of Fish and Game, California Geological Survey, and CAL FIRE.

The California Water Quality Control Board - North Coast Region (Regional Water Board) has two roles in the review of timber harvest plans, Non-industrial Timber Management Plans (NTMPs), and other commercial timber harvest projects on private lands:

- The Regional Water Board issues permits, referred to as Waste Discharge Requirements (WDRs) and Waivers of WDRs (Waiver), which establish

conditions or requirements to control discharges of waste to waters of the State. Discharges associated with timber harvesting activities typically include sediment from erosion and/or increased water temperature from loss of riparian canopy.

- As a member of the CAL FIRE Review Team the Regional Water staff also participates in pre-harvest inspections and submits comments and recommendations to CAL FIRE to protect water quality and to avoid violations of Regional Water Board regulations.

Following plan approval by CAL FIRE, and prior to beginning timber harvest activities, landowners must apply for coverage under the General WDRs ([Order No. R1-2004-0030](#)), the Categorical Waiver ([Order No. R1-2009-0038](#)) the NTMP General WDRs ([Order No. R1-2013-0005](#)), an individual waiver or WDR, or in some cases a Watershed-wide WDR.

Regional Water Board staff may also perform the following activities to protect the beneficial uses of water and regulate timber harvest activities: attend active and post-harvest inspections of approved plans; review Habitat Conservation Plans and Sustained Yield Plans; perform and review watershed analyses; participate in meetings of the Board of Forestry and CAL FIRE; take enforcement actions and investigate complaints; assess conversions of timber lands to other land uses; and participate in TMDL development and implementation.

Most of the public lands involved in timber harvest activities within the North Coast Region are under the jurisdiction of the U.S. Forest Service (USFS). The State Water Board and the USFS entered into a Management Agency Agreement (MAA) in 1981 for overseeing water quality protection on National Forest System lands, including timber sales. The MAA requires the USFS to implement approved best management practices for water quality protection. In June 2010, the Regional Water Board adopted [Order No. R1-2010-0029](#), Waiver of Waste Discharge Requirements for Nonpoint Source Discharges Related to Certain Federal Land Management Activities on National Forest System Lands in the North Coast Region. This order replaced a previous 2004 waiver that covered only timber harvesting operations ([Order No. R1-2004-0015](#)). The USFS must seek coverage under the 2010 Waiver prior to beginning timber harvest activities. Regional Water Board staff provides comments and conduct inspections on proposed timber sales and other projects.

Table 23-2 provides an overview of the Watershed Benefits of Urban Forest Cover. These benefits are not limited to urban forests but apply to riparian forests more broadly. The discussion of riparian forest protection could be enhanced by providing a more robust overview of riparian processes, including the role of wood loading and shade.

14. Forest Management, Monitoring and Research, Recommendations. There is a great need to develop water quality and stream flow gages in areas that serve as reference areas, indicative of naturally occurring background conditions, within a range of geologic conditions. Coupled with assessments of sediment sources

and erosional processes, these areas can offer important insight for evaluation of the extent of management impacts and the development of goal conditions.

Language should be modified as indicated by strike-out underline: 5.

Effectiveness of ~~BMPs~~ forest practices in protecting beneficial uses of water and meeting water quality objectives.

Cumulative watershed effects analyses and mitigations of timber harvest operations should not be limited to project-by-project evaluation but should incorporate planning for watershed recovery to ensure co-benefits.

15. Forest Management, Illegal Marijuana Cultivation. In the North Coast, marijuana cultivation has been prevalent for the past forty years. Since the passage of state medical marijuana laws, private lands are widely used for cultivation of marijuana associated with rural homesteads. Due to evolving guidance and interpretation of state regulations, the legality of operations on private lands are often uncertain, in contrast with large-scale grows on public lands. Rural homesteads are not well regulated for non-point source discharges as most programs focus on industry-based programs (e.g., timber harvest, construction stormwater). Marijuana cultivation on private lands can cause impacts associated with sediment discharges due to clearing and grading and importation of nutrient rich soil; nutrient discharges can result from over application of fertilizers; use of pesticides and rodent poisons can result in impacts to the environment; irrigation water use can put significant additional stress on streams, especially during periods of low flow in the summer and fall. These impacts can exacerbate those that may be associated with a rural homestead, which include the use of rural county and private road systems. It is a difficult area for resource protection agencies to address due the quasi-legal status of marijuana on private lands.

The State Water Resource Control Board's 2004 Non-Point Source Policy requires that all NPS discharges shall be regulated by either a permit, and waiver, or a prohibition. The Regional Water Board is proceeding with an effort to regulate marijuana cultivation on private lands in conformance with the state's non-point source policy by addressing potential water quality impacts resulting from grading activities, road construction, road maintenance, hazardous materials handling, etc.

One issue worth discussion is the need to provide incentives and/or amnesty programs to rural landowners so as to encourage their participation in regulatory programs, even when building codes, road construction standards, or other standards are not currently being met.

16. Landuse Planning. State and local/county governments should coordinate to identify areas for water quality protection to ensure that local landuses meet water quality standards. This will reduce conflict and provide greater certainty to landowners/developers as additional conditions would be minimized.
17. Recharge area protection. This section should include a recommendation that existing groundwater quality be characterized prior to implementation of recharge

activities, so as to identify areas of high quality water and ensure adequate protection under the state's antidegradation policy.